Attorney Docket No: 0218us210

Application No.: 10/003,496

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## **Listing of Claims:**

The following listing of claims replaces all prior versions and listings of claims in the application. Additions are indicated by <u>underlining</u> and deletions are indicated by <u>strikethrough</u>, except where a strikethrough would not be easily perceived, in which case the deleted text is indicated by double brackets [[]] flanking the text to be deleted.

- 1. (Amended) A single-chain multimeric polypeptide having G-CSF activity, comprising at least two monomeric units independently selected from (a) hG-CSF with the amino acid sequence shown in as set forth in SEQ ID NO:1 and (b) a variant[[s]] of hG-CSF with an amino acid sequence which differs in 1-8 amino acid residues from SEQ ID NO:1 and which comprises at least one amino acid residue modification selected from the group consisting of: introduction of a lysine, cysteine, aspartic acid, glutamic acid or histidine residue, and removal of a lysine, cysteine, aspartic acid, glutamic acid or histidine residue, said monomeric units being linked via a peptide bond or a peptide linker linker peptide, the polypeptide comprising at least one covalently bound polymer molecule selected from the group consisting of a linear polyalkylene oxide and a branched polyalkylene oxide[[s]].
- (Original) The single-chain multimeric polypeptide of claim 1, wherein the polymer molecule is polyethylene glycol.
- (Original) The single-chain multimeric polypeptide of claim 2, wherein at least one
  polyethylene glycol molecule is bound to a lysine residue.
- 4. (Amended) The single-chain multimeric polypeptide of claim 1, wherein at least one of said monomeric units has the amino acid sequence of hG-CSF-(SEQ ID NO:1) as set forth in SEQ ID NO:1.

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- 5. (Amended) The single-chain multimeric polypeptide of claim 4, comprising two monomeric units, wherein both each of said monomeric units have has the amino acid sequence of hG-CSF-(SEQ ID NO:1) as set forth in SEQ ID NO:1.
- 6. (Amended) The single-chain multimeric polypeptide of claim 1, wherein at least one of said monomeric units is a variant of hG-CSF comprising at least one substitution, addition or deletion compared to SEQ ID NO:1 according to (b).
- (Canceled)
- 8. (Amended) The single-chain multimeric polypeptide of claim 6, comprising two monomeric units, wherein both each of said monomeric units have at least one amino acid residue modification compared to hG CSF is a variant of hG-CSF according to (b).
- 9. (Amended) The single-chain multimeric polypeptide of claim 1, comprising two monomeric units, wherein one of said monomeric units has the amino acid sequence of hG-CSF (SEQ ID NO:1) as set forth in SEQ ID NO:1 and the other monomeric unit is a variant of hG-CSF according to (b).
- 10. 21. (Canceled)
- 22. (Amended) A <u>nucleic acid comprising a nucleotide</u> sequence encoding <u>a-the</u> single-chain <u>multimeric</u> polypeptide according to claim 1.
- (Amended) An expression vector comprising a the nucleic acid nucleotide sequence according to claim 22.
- 24. (Amended) A recombinant host cell comprising an the expression vector according to claim 23.

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- 25. (Amended) A method for preparing a single-chain multimeric polypeptide having G-CSF activity, comprising culturing a recombinant host cell according to claim 24 comprising a single-nucleotide sequence encoding said polypeptide comprising the expression vector of claim 23 in a suitable culture medium under conditions permitting expression of the nucleotide sequence, and nucleic acid, recovering the resulting polypeptide from the cell culture, and subjecting the polypeptide to conjugation with a polymer molecule selected from the group consisting of a linear polyalkylene oxide and a branched polyalkylene oxide.
- 26. (Amended) The method of claim 25, further comprising subjecting the polypeptide to conjugation in vitro with a non-polypeptide moiety under suitable reaction conditions to result in a polypeptide conjugate wherein the polymer molecule is a polyethylene glycol.
- 27. (Amended) A composition comprising a single-chain multimeric polypeptide according to claim 1 together with and at least one excipient or vehicle.

28.-33. (Canceled)

34. (New) A method for treating a mammal exhibiting leukopenia or neutropenia, comprising administering to said mammal an effective amount of the single-chain multimeric polypeptide of claim 1.